In the Specification

Mark-ups reflecting changes are provided on the attached sheets. Please amend the specification as follows.

Replace the paragraph at Page 14, Line 24 through Page 15, Line 6 with:

Broker 14 generates an optimal value for each party 12 according the optimization problem for each party 12 at step 111. At step 112, broker 14 generates a linear program or other suitable formulation of the global optimization problem according to the multiple optimization problems and values received from parties 12 and, at step 114, generates a corresponding global solution 54. As part of or separate from discovering the global solution 54, broker 14 determines whether any excess exists at step 116 and, at step 118, distributes any such excess among parties 12 according to one or more previously agreed upon or other suitable fairness criteria. Broker 14 may also perform one or more Pareto-optimality passes at step 120, as part of or separate from determining the global solution 54, to achieve Pareto-optimality. Broker 14 transmits global solution 54 to parties 12 at step 122, substantially simultaneously or in any relative order. In one embodiment, if a next round of discovery stage 52 is to be performed at step 124, the method returns to step 110, where parties 12 may transmit new thresholds or other values to the broker 14. Otherwise, discovery stage 52 ends, filtering stage 56 may begin if desired, and the method proceeds to step 126, where parties 12 transmit suitable filtering information to broker 14 according to a previously agreed upon or other filtering approach.

In the Claims

For the convenience of the Examiner, all pending claims are set forth below. No amendments have been made to the claims.

1. A system for multi-party constrained optimization, the system operable to:

access a first optimization problem and a first value corresponding to a first party to a negotiation, the first optimization problem comprising at least one first objective to which the first value relates;